

QUAD J-FET INPUT OPERATIONAL AMPLIFIER

■ GENERAL DESCRIPTION

The NJM074/084 are quad JFET input operational amplifiers.

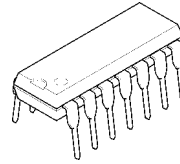
The NJM074/084 have the same electrical characteristics of NJM072B/082B except supply current.

■ FEATURES

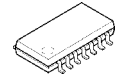
- Operating Voltage ($\pm 4V \sim \pm 18V$)
- J-FET Input
- High Input Resistance ($10^{12}\Omega$ typ.)
- Low Input Bias Current ($30pA$ typ.)
- High Slew Rate ($13V/\mu s$ typ.)
- Wide Unity Gain Bandwidth ($3MHz$ typ.)
- Package Outline DIP14, DMP14, SSOP14
- Bipolar Technology

■ PIN CONFIGURATION

■ PACKAGE OUTLINE



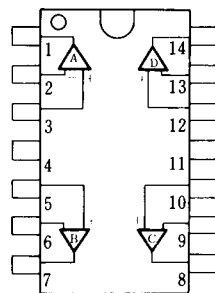
NJM074D
NJM084D



NJM074M
NJM084M



NJM074V
NJM084V

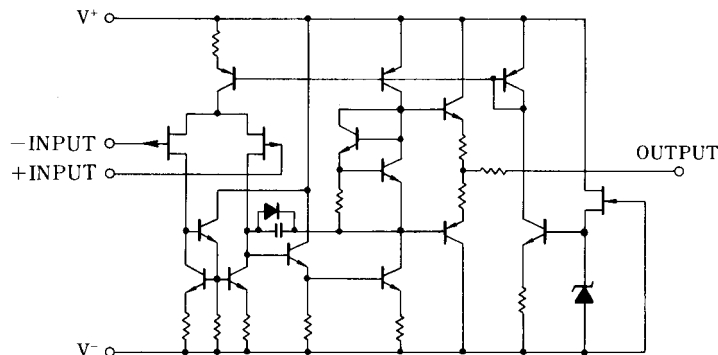


NJM074D/084D
NJM074M/084M
NJM074V/084V

PIN FUNCTION

1. A OUTPUT
2. A -INPUT
3. A +INPUT
4. V^+
5. B +INPUT
6. B -INPUT
7. B OUTPUT
8. C OUTPUT
9. C -INPUT
10. C +INPUT
11. V^-
12. D +INPUT
13. D -INPUT
14. D OUTPUT

■ EQUIVALENT CIRCUIT (1/4 Shown)



NJM074/084

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+V^-	± 18	V
Differential Input Voltage	V_{ID}	± 30	V
Input Voltage	V_{IC}	± 15 (note1)	V
Power Dissipation	P_D	(DIP14) 700 (DMP14) 700 (note2) (SSOP14) 300	mW
Operating Temperature Range	T_{opr}	-40~+85	°C
Storage Temperature Range	T_{stg}	-40~+125	°C

(note1) For supply voltage less than ±15V, the absolute maximum input voltage is equal to the supply voltage.

(note2) At on PC board

■ ELECTRICAL CHARACTERISTICS (Ta=+25°C, V^+V^- =±15V)

() Applies to NJM084

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V_{IO}	$R_S=50\Omega$	-	3(5)	10(15)	mV
Input Offset Current	I_{IO}		-	5	50(200)	pA
Input Bias Current	I_B		-	30	200(400)	pA
Input Common Mode Voltage Range	V_{ICM}		± 10	-	-	V
Maximum Peak-to-peak Output Voltage Swing	V_{OPP}	$R_L=10k\Omega$	24	27	-	V_{P-P}
Large-Signal Voltage Gain	A_V	$R_L \geq 2k\Omega, V_O = \pm 10V$	88	106	-	dB
Unity Gain Bandwidth	f_T		-	3	-	MHz
Input Resistance	R_{IN}		-	10^{12}	-	Ω
Common Mode Rejection Ratio	CMR	$R_S \leq 10k\Omega$	70	76	-	dB
Supply Voltage Rejection Ratio	SVR	$R_S \leq 10k\Omega$	70	76	-	dB
Operating Current	I_{CC}		-	6	10(11.2)	mA
Slew Rate	SR		-	13	-	V/ μ s
Equivalent Input Noise Voltage	V_{NI}	$R_S=100\Omega, B.W.=10\sim 10kHz$	-	4	-	μ V _{rms}

[CAUTION]

The specifications on this databook are only given for information, without any guarantee as regards either mistakes or omissions. The application circuits in this databook are described only to show representative usages of the product and not intended for the guarantee or permission of any right including the industrial rights.